August 18, 2003 Certified Mail 9059 7349

Kenneth F. Moses
Plant Environmental Engineer
Unilever HPC, USA
1200 Calumet Avenue
Hammond, Indiana 46320

Re: 089-17305-00229
Minor Source Modification
Part 70 Permit - T089-6623-00229

Dear Mr. Moses:

Unilever HPC, USA was issued Part 70 operating permit T089-6623-00229 on April 19, 2002 for a soap manufacturing plant. An application to modify the source was received on March 3, 2003. Pursuant to 326 IAC 2-7-10.5 the following emission unit is approved for construction at the source:

Soap Noodle Bagging Silo Dust Collection System (DC-31613)

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The proposed operating conditions applicable to this emission unit are attached to this minor source modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as a minor permit modification in accordance with 326 IAC 2-7-12.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (219) 853-6306 and ask for Ronald Holder.

Sincerely,

Ronald L. Novak, Director
Hammond Department of Environmental Management
Air Pollution Control Division

Attachments
RH
cc: IDEM-OAQ – Permits Administration – Mindy Hahn

PART 70 MINOR SOURCE MODIFICATION

Indiana Department of Environmental Management
Office of Air Quality

and

Hammond Department of Environmental Management
Air Pollution Control Division

Conopco, Inc. d/b/a Unilever HPC USA
1200 Calumet Avenue
Hammond, Indiana 46320

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission unit described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Minor Source Modification No.: 089-17305-00229	
Issued by:	Issuance Date: August 18, 2003
Ronald L. Novak, Director Hammond Department of Environmental Management	

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SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and the Hammond Department of Environmental Management (HDEM). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary soap manufacturing plant.

Responsible Official:	Plant Manager
Source Address:	1200 Calumet Avenue, Hammond, Indiana 46320
Mailing Address:	1200 Calumet Avenue, Hammond, Indiana 46320
General Source Phone Number:	(219) 659-3200
SIC Code:	2841 - Soap and Other Detergents
County Location:	Lake
Source Location Status:	Attainment for Lead, CO and NO_2, Severe Non-Attainment for Ozone and Non-Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source under PSD and Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

v) Soap Noodle Bagging Silo Dust Collector System (DC-31613), constructed in 2003, used to control soap dust from the transfer of soap noodles to silo TK-31610, with a maximum capacity of 11,000 tons per year, and exhausting to Stack 30.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This modification does not include any insignificant activities, as defined in 326 IAC 2-7-1(21).

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because it is a major source, as defined in 326 IAC 2-7-1(22).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Manufacturing Processes controlled by Dust Collector Systems, identified as follows:

a) Soap Rework Grinding Process, identified as Unit 11, constructed in 1979, controlled by a dust collection system, with a maximum capacity of 4,167 pounds per hour and exhausting to Stack 13.

b) Three (3) Vacuum System Soap Dryers, identified as Unit 12, constructed in 1979, controlled by a bag collector with a combined maximum amount of soap produced for all three dryers of 28,713 pounds per hour and exhausting to Stack 14.

c) Five (5) Noodles Bins, Two (2) Rework Systems, and One (1) Scrap Soap Kettle, identified as Unit 13, constructed in 1979, controlled by a filter bag collector with a maximum of 32,880 pounds per hour of soap handled and exhausting to Stack 15.

d) Tallow Finishing Lines 8, 9, 10, 11, 12 and 13, constructed in 1979, and re-configured in 2002, controlled by three (3) dust collectors, with a maximum design rate of 59,000 pounds per hour, and exhausting to Stacks 16, 17, and 17A.

e) Soap Noodle Bin No. 1 Dust Collection System (DC-5), identified as Unit 18, constructed in 1985, used to control soap dust from the transfer of soap noodles or pellets via an air conveyor system to Noodle Bins No. 1, 2, 3, or 4 (connected to a common header), with a maximum capacity of 23,625 pounds per hour and exhausting to Stack 20.

f) Soap Noodle Bin No. 2 Dust Collection System (DC-6), identified as Unit 19, constructed in 1985, used to control soap dust from the transfer of soap noodles or pellets via an air conveyor system to Noodle Bins No. 1, 2, 3, or 4 (connected to a common header), with a maximum capacity of 23,625 pounds per hour and exhausting to Stack 21.

g) Soap Noodle Bin No. 3 Dust Collection System (DC-7), identified as Unit 20, constructed in 1985, used to control soap dust from the transfer of soap noodles or pellets via an air conveyor system to Noodle Bins No. 1, 2, 3, or 4 (connected to a common header), with a maximum capacity of 23,625 pounds per hour and exhausting to Stack 22.

h) Chip Mixer No. 1, identified as Unit No. 21, constructed in 1985, controlled by a dust collection system (DC-8), with a maximum capacity of 23,625 pounds per hour and exhausting to Stack 23.

i) Chip Mixer No. 2, identified as Unit No. 22, constructed in 1985, controlled by a dust collection system (DC-9), with a maximum capacity of 23,625 pounds per hour and exhausting to Stack 23.

j) Chip Mixer Nos. 3 and 4, identified as Unit No. 23, constructed in 1985, controlled by a dust collection system (DC-10), with a maximum capacity of 23,625 pounds per hour and exhausting to Stack 23.

k) Powder Dye Mixing System, identified as Unit 24, constructed in 1985, controlled by a dust collection system (DC-4), with a maximum capacity of 100 pounds per hour and exhausting to Stack 26.

l) Zinc Oxide Catalyst Weigh Station and three Chill Rolls (Lines 1, 2, & 3), identified as Unit 25, constructed in 1985, controlled by a dust collection system (DC-3), with a maximum design rate of soap to be processed of 18,000 pounds per hour and exhausting to Stack 27.

m) Detergent Bar Soap Facility Milling and Pelletizing, identified as Unit 26, constructed in 1985, controlled by a dust collection system (DC-1), with a maximum capacity of 23,625 pounds per hour and exhausting to Stack 28.

n) Three (3) Chill Roll Apron Conveyors and Screw Conveyors (Lines 1, 2, & 3), identified as Unit 27, constructed in 1985, controlled by a dust collection system (DC-2), with a maximum capacity of 18,000 pounds per hour and exhausting to Stack 29.

o) Flex-Kleen Dust Collector System (DC-1053), identified as Unit 31, originally constructed in 1990, and modified in 2001 to be part of a dust collector header system integrating dust collectors DC-1051, DC-1053, DC-1054, and DC-1055. The dust collector header collects dust from the soap noodle bins, rework feed hoppers, re-melt hoppers and other miscellaneous pick-up points associated with maintenance clean up, with a maximum capacity of 5,976 pounds per hour and exhausting to stack 3A.

p) Flex-Kleen Dust Collector System (DC-1054), identified as Unit 32, originally constructed in 1990, and modified in 2001 to be part of a dust collector header system integrating dust collectors DC-1051, DC-1053, DC-1054, and DC-1055. The dust collector header collects dust from the soap noodle bins, rework feed hoppers, re-melt hoppers and other miscellaneous pick-up points associated with maintenance clean up, with a maximum capacity of 5,976 pounds per hour and exhausting to stack 4A.

q) Flex-Kleen Dust Collector System (DC-1055), identified as Unit 33, originally constructed in 1990, and modified in 2001 to be part of a dust collector header system integrating dust collectors DC-1051, DC-1053, DC-1054, and DC-1055. The dust collector header collects dust from the soap noodle bins, rework feed hoppers, re-melt hoppers and other miscellaneous pick-up points associated with maintenance clean up, with a maximum capacity of 5,976 pounds per hour and exhausting to stack 5A.

r) Flex-Kleen Dust Collector System (DC-1056), identified as Unit 34, constructed in 1990, used to control the exhaust from a soap noodle bin, a rework feed hopper, a remelt hopper, and Detergent Bar Soap Manufacturing Line No. 5 Noodle Bin when producing product, and Line No. 4, with a maximum capacity of 5,976 pounds per hour and exhausting to stack 6A.

s) Flex-Kleen Dust Collector System (DC-1052), identified as Unit 35, constructed in 1990, used to control the exhaust from pick-up points along Bar Soap Finishing Lines #4 and #5. Pick-up points are distributed for maximum dust reduction along the lines including plodder/extruder hoppers, duplex refiners, apron/screw conveyors, incline conveyors, pelletizing refiners, noodle hoppers, and chip mixers, rework grinder and the TiO2 dump station. The unit has a maximum capacity of 5,976 pounds per hour and exhausts to stack 7A.

t) Flex-Kleen Dust Collector System (DC-1051), identified as Unit 36, originally constructed in 1990, and modified in 2001 to be part of a dust collector header system integrating dust collectors DC-1051, DC-1053, DC-1054, and DC-1055. The dust collector header collects dust from the soap noodle bins, rework feed hoppers, re-melt hoppers and other miscellaneous pick-up points associated with maintenance clean up, with a maximum capacity of 5,976 pounds per hour and exhausts to stack 8A.

u) No. 1 and No. 2 Noodle Bins, identified as Unit 48, constructed in 1979, controlled by a dust collector, with a maximum capacity of 10,000 pounds per hour and exhausting to Stack 46.

v) Soap Noodle Bagging Silo Dust Collector System (DC-31613), constructed in 2003, used to control soap dust from the transfer of soap noodles to silo TK-31610, with a maximum capacity of 11,000 tons per year, exhausting to Stack 30.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Matter (PM) [Hammond Ordinance No. 3522]
Pursuant to the Hammond Air Quality Control Ordinance No. 3522 (as amended), PM emissions from the Zinc Oxide Catalyst Weigh Station, Unit 25, shall not exceed 0.021 pounds per hour or 0.092 tons per year; PM emissions from the Detergent Bar Soap Facility Milling and Pelletizing, Unit 26, shall not exceed 0.79 pounds per hour or 3.45 tons per year; and PM emissions from the No.1 & No. 2 Noodle Bins, Unit 48, shall not exceed 0.006 pounds per hour or 0.0263 tons per year.

These local limits are not state or federally enforceable. They are only enforceable by HDEM.

D.3.2 Particulate Matter (PM10) Limit [Hammond Ordinance No. 3522]
Pursuant to Hammond Ordinance No. 3522, PM10 emissions from the No. 1 and No. 2 Noodle Bins, Unit 48, shall not exceed 0.0042 pounds per hour or 0.0184 tons per year.

These local limits are not state or federally enforceable. They are only enforceable by HDEM.

D.3.3 Particulate Matter less than ten (10) microns (PM_{10}) Limit [326 IAC 6-1-2(a)]
Pursuant to Minor Source Modification 089-17305-00229 and 326 IAC 6-1-2(a), PM_{10} emissions from the Soap Noodle Bagging Silo Dust Collector System (DC-31613) shall not exceed 0.03 gr/dscf, which is equivalent to 0.62 lbs/hr.

D.3.4 Particulate Matter less than 10 microns (PM_{10}) Lake County Rule [326 IAC 6-1-10.1(d)]
Pursuant to 326 IAC 6-1-10.1(d), the PM_{10} emissions from the manufacturing emission units shall not exceed the following emission limitations:

Emission Unit Description	Emission Unit ID #	PM_{10} Emission Limit (gr/dscf)	PM_{10} Emission Limit (lbs/hr)
Soap Rework Grinding Process	11	0.020	0.250
Three (3) Vacuum System Soap Dryers	12	0.020	0.120
Five (5) Noodles Bins, Two (2) Rework Systems, and One (1) Scrap Soap Kettle	13	0.020	0.860
Tallow Finishing Lines 8, 9, 10, 11, 12 and 13	14/15	0.020*	1.540*
Soap Noodle Bin No. 1 Dust Collection System	18	0.020	0.210
Soap Noodle Bin No. 2 Dust Collection System	19	0.020	0.210
Soap Noodle Bin No. 3 Dust Collection System	20	0.020	0.210
Chip Mixer No. 1	21	0.020**	0.720**
Chip Mixer No. 2	22	0.020**	0.720**
Chip Mixer No. 3 and 4	23	0.020**	0.720**
Powder Dye Mixing System	24	0.020	0.130
Zinc Oxide Catalyst Weigh Station and Three Chill Rolls	25	0.020	0.800
Detergent Bar Soap Facility Milling and Pelletizing	26	0.020	1.03
Three (3) Chill Roll Apron Conveyors and Screw Conveyors	27	0.020	1.090
Flex-Kleen Dust Collector System (DC-1053)	31	0.020	0.940
Flex-Kleen Dust Collector System (DC-1054)	32	0.020	0.940
Flex-Kleen Dust Collector System (DC-1055)	33	0.020	0.940
Flex-Kleen Dust Collector System (DC-1056)	34	0.020	0.940
Flex-Kleen Dust Collector System (DC-1052)	35	0.020	2.130
Flex-Kleen Dust Collector System (DC-1051)	36	0.020	2.130

*Combined limit for Units 14 and 15, exhausting to Stacks 16 and 17
**Combined limit for Units 21, 22 and 23, exhausting to Stack 23

D.3.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]
A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.3.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]
Within 36 months after issuance of this permit, a performance test shall be conducted for Units 11, 12, 13, 14, 18, 21, 26, and 27 in order to demonstrate compliance with Conditions D.3.2 and D.3.3. The Permittee shall perform PM-10 testing utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C – Performance Testing.

D.3.7 Particulate Matter (PM)
The dust collection systems for PM control shall be in operation and control emissions from these facilities at all times when the facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.8 Visible Emissions Notations

(a) Visible emission notations of the stack exhausts from these facilities shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.3.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across each baghouse used in conjunction with the manufacturing processes, at least once weekly when the processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across each baghouse is outside the normal range of 1.0 and 8.0 inches of water, a range established during the latest stack test or as recommended by the equipment manufacturer, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM – OAQ and HDEM and shall be calibrated at least once every six (6) months.

D.3.10 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the manufacturing processes when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.3.11 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any

failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.12

Record Keeping Requirements

(a) To document compliance with Condition D.3.8, the Permittee shall maintain records of daily visible emission notations of the stack exhaust from each facility.

(b) To document compliance with Condition D.3.9, the Permittee shall maintain the following:

(1) Weekly records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

(2) Documentation of the dates vents are redirected.

(c) To document compliance with Condition D.3.10, the Permittee shall maintain records of the results of inspections required under Condition D.3.10 and the dates the vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Indiana Department of Environmental Management
Office of Air Quality

and

Hammond Department of Environmental Management
Air Pollution Control Division

Technical Support Document (TSD) for a Minor Source Modification and Minor Permit Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	Unilever Home & Personal Care - USA
Source Location:	1200 Calumet Avenue, Hammond, Indiana 46320
County:	Lake
SIC Code:	2841 - Soap and Other Detergents
Operation Permit No.:	T089-6623-00229
Operation Permit Issuance Date:	April 19, 2002
Minor Source Modification	089-17305-00229
Minor Permit Modification	089-17907-00229
Permit Reviewer:	Ronald Holder, HDEM

The Hammond Department of Environmental Management (HDEM) has reviewed an application from Unilever HPC, USA relating to the addition of an emission unit that will require a minor source modification and a minor permit modification of their Part 70 permit.

The modification will consist of the installation of a soap noodle airveyor and soap noodle silo for collecting soap noodles prior to bagging. A new dust collector will be installed to control soap dust from the transfer of soap noodles via air conveyor to the new silo. The unit will be identified in their existing permit as Soap Noodle Bagging Silo DC System (DC-31613).

History

On March 3, 2003, Unilever HPC, USA submitted an application to the HDEM requesting approval to install Soap Noodle Bagging Silo DC System (DC-31613) and modify their current Part 70 permit accordingly. Unilever submitted a Part 70 permit application on September 18, 1996. The Part 70 permit T089-6623-00229 was issued on April 19, 2002.

Existing Approvals

The source was issued a Part 70 Operating Permit (T089-6623-00229) on April 19, 2002. The source has since received the following:

First Administrative Amendment:	089-15624-00229, issued on July 16, 2002.
First Minor Permit Modification:	089-16108-00229, issued on June 20, 2003.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification and Minor Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 3, 2003. Additional information was received on June 22, 2003.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
#30	Soap Noodle Bagging Silo DC System (DC-31613)	56'	0.583' (7")	2400	Ambient

Emission Calculations

See Appendix A of this document for detailed emissions calculations (one (1) page).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	13.9
PM-10	9.7
SO_2	0
VOC	0
CO	0
NO_x	0

Justification for Modification

The Part 70 Operating permit is being modified through Part 70 Minor Source Modification 089-17305-00229 and Minor Permit Modification 089-17907-00229.

The minor source modification is being performed pursuant to 326 IAC 2-7-10.5(d)(4)(A), a modification that would have a potential to emit less than twenty-five (25) tons per year and equal to or greater than five (5) tons per year of either particulate matter (PM) or particulate matter less than ten (10) microns (PM_{10}). The minor permit modification is being performed pursuant to 326 IAC 2-7-12(b)(1), a modification that does not violate any applicable requirement and does not involve significant changes to existing monitoring, reporting, or record keeping requirements.

County Attainment Status

The source is located in Lake County.

40 CFR 81.315 – (Indiana)

Pollutant	Status
PM_{10}	Moderate Nonattainment
SO_2	Primary Nonattainment
NO_x	Unclassifiable/Attainment
Ozone*	Severe Nonattainment
CO	Unclassifiable/Attainment
Lead	Attainment

Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as severe non-attainment for ozone, moderate non-attainment for particulates less than ten (10) microns in diameter (PM_{10}), and primary non-attainment for SO_2. Therefore, VOC, PM_{10}, and SO_2 emissions are reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

Lake County has also been designated as attainment for oxides of nitrogen (NOx) and carbon monoxide (CO). Therefore, NOx and CO emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM-10	84.4
SO_2	773.1
VOC	8.3
CO	65.4
NOx	301.9

This existing source is a major stationary source for the purposes of 326 IAC 2-3 (Emission Offset) because it emits, or has the potential to emit, one hundred (100) tons per year or more of particulates less than ten (10) microns in diameter (PM_{10}), and sulfur dioxide (SO_2).

This existing source is also a major stationary source for the purposes of 326 IAC 2-2 (Prevention of Significant Deterioration - PSD) because it has the potential to emit two hundred fifty (250) tons per year or more of any air pollutant subject to regulation under the Clean Air Act.

These emissions are based on the Unilever's 2001 emissions statement.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Soap Noodle Bagging Silo DC System (DC 31613)	2.7	2.7	0	0	0	0	0
PSD and Emission Offset Significant Levels	25	15	40	25	100	40	0.6

2.7 tons per year is 0.62 lbs/hr for 8760 hours, which is equivalent to 0.03 gr/dscf. The worst case supposition is that all the particulate matter is less than ten (10) microns in diameter (PM_{10}), therefore, the most stringent limitation available for PM_{10} is the particulate matter (PM) limitation in 326 IAC 6-1-2(a) – 0.03 gr/dscf, equivalent to 0.62 lbs/hr.

This modification to an existing major stationary source is not a major modification because the emissions increase is less than the PSD and Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-2 and 326 IAC 2-3, PSD and Emission Offset requirements do not apply.

Federal Rule Applicability

There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this permit modification.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this permit modification.

State Rule Applicability - Individual Facilities

326 IAC 6-1-2(a) Particulate Emission Limitations (General Sources)
Unilever HPC, USA is located in Lake County and has the potential to emit one hundred (100) tons or more of particulate matter per year. Therefore, 326 IAC 6-1-2(a) shall apply to the facilities at that location that have emissions of particulate matter.

The worst case supposition would be that all the particulate matter (PM) is less than ten (10) microns in diameter (PM_{10}). Therefore, the most stringent limitation available for PM_{10} is the particulate matter (PM) limitation in 326 IAC 6-1-2(a) – 0.03 gr/dscf.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:
This emission unit will be added to an existing D section of the company's existing Part 70 permit. These are the existing compliance determination and monitoring requirements of Section D.3.

Compliance Determination Requirements

Particulate matter (PM) and particulate matter less than ten microns in diameter (PM_{10})
The dust collection systems for PM and PM_{10} control shall be in operation and control emissions from these facilities at all times when the facilities are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Visible Emissions Notations

(a) Visible emission notations of the stack exhausts from these facilities shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Parametric Monitoring
The Permittee shall record the total static pressure drop across each baghouse used in conjunction with the manufacturing processes, at least once weekly when the processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across each baghouse is outside the normal range of 1.0 and 8.0 inches of water, a range established during the latest stack test or as recommended by the equipment manufacturer, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan – Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and HDEM and shall be calibrated at least once every six (6) months.

Baghouse Inspections
An inspection shall be performed each calendar quarter of all bags controlling the manufacturing processes that vent to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

Broken or Failed Bag Detection
In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

Record Keeping Requirements

(a) To document compliance with the condition for Visible Emissions Notations, the Permittee shall maintain records of visible emission notations of the stack exhaust from each facility.

(b) To document compliance with the condition for Parametric Monitoring, the Permittee shall maintain the following:

(1) Weekly records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

(2) Documentation of the dates vents are redirected.

(c) To document compliance with the condition for Baghouse Inspections, the Permittee shall maintain records of the results of inspections required under that condition and the dates the vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Proposed Changes: (affected pages 1, 4, 5, 10, 45, and 46-48)

The following changes were agreed to and made as the Second Minor Permit Modification for this source (~~strikeout~~ added to show what was deleted and **bold** added to show what was added).

1. The cover page (page 1) was modified to add the issuance date of this Second Minor Permit Modifcation, and to show the affected pages.

2. On page 4 and 5 of 69, in the Table of Contents, the emission limitation for the new unit - Condition D.3.3 was inserted as follows and the remaining conditions were re-numbered. Page 5 was changed because the addition of Condition D.3.3 pushed Section D.5 Facility Conditions to the next page.

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.3.1 Particulate Matter 10 (PM_{10}) [Hammond Ordinance 3522]
D.3.2 Particulate Matter (PM10) Limit [Hammond Ordinance No. 3522
D.3.3 Particulate Matter less than ten (10) microns (PM_{10}) Limit [326 IAC 6-1-2(a)]
~~D.3.3~~ **D.3.4** Particulate Matter less than 10 microns (PM_{10}) Lake County Rule
~~D.3.4~~ **D.3.5** Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements
~~D.3.5~~ **D.3.6** Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]
~~D.3.6~~ **D.3.7** Particulate Matter (PM)

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
~~D.3.7~~ **D.3.8** Visible Emissions Notations
~~D.3.8~~ **D.3.9** Parametric Monitoring
~~D.3.9~~ **D.3.10** Baghouse Inspections
~~D.3.10~~ **D.3.11** Broken or Failed Bag Detection

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]
~~D.3.11~~ **D.3.12** Record Keeping Requirements

3. On page 10 of 69, in Section A.2, Emission Units and Pollution Control Equipment Summary, the new emission unit was added as follows:

v) Soap Noodle Bagging Silo Dust Collection System (DC-31613), constructed in 2003, used to control soap dust from the transfer of soap noodles to silo TK-31610, with a maximum capacity of 11,000 tons/yr, and exhausting to Stack 30.

4. On page 45 of 69, the new emission unit was added to the end of the list of units in the Facility Description Box of Section D.3 as follows:

v) Soap Noodle Bagging Silo Dust Collection System (DC-31613), constructed in 2003, used to control soap dust from the transfer of soap noodles to silo TK-31610, with a maximum capacity of 11,000 tons/yr, and exhausting to Stack 30.

5. On page 45 of 69, Condition D.3.3 is added as follows:

D.3.3 **Particulate Matter less than ten (10) microns (PM_{10}) Limit [326 IAC 6-1-2(a)]**
Pursuant to Minor Source Modification 089-17305-00229 and 326 IAC 6-1-2(a), PM_{10} emissions from the Soap Noodle Bagging Silo Dust Collection System (DC-31613) shall not exceed 0.03 gr/dscf, which is equivalent to 0.62 lbs/hr.

6. On pages 46 through 48 of 69, the existing conditions D.3.3 through D.3.11 are unchanged, but re-numbered D.3.4 through D.3.12 due to the addition of the above Emission Limitation.

7. On page 48 of 69, the Record Keeping Requirements are corrected as follows in order to reference the appropriate conditions.

D.3.12 Record Keeping Requirements

(a) To document compliance with Condition ~~D.3.7~~ **D.3.8**, the Permittee shall maintain records of daily visible emission notations of the stack exhaust from each facility.

(b) To document compliance with Condition ~~D.3.8~~ **D.3.9**, the Permittee shall maintain the following:

(1) Weekly records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle operation.

(2) Documentation of the dates vents are redirected.

(c) To document compliance with Condition ~~D.3.9~~ **D.3.10**, the Permittee shall maintain records of the results of inspections required under Condition ~~D.3.9~~ **D.3.10** and the dates the vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Conclusion

The construction of this Soap Noodle Bagging Silo Dust Collection System (DC-31613) shall be subject to the conditions of the attached Part 70 Minor Source Modification **089-17305-00229** or Part 70 Minor Permit Modification **089-17907-00229**.

ALABAMA POWER LAW (CDS)/EIS CALCULATIONS

EIS Form ss (Excel5)

Appendix A - Calculations
for Minor Source Modifcation 17305
and Minor Permit Modification 17907

Unilever HPC USA
1200 CALUMET AVENUE
HAMMOND, IN 46320

PLANT ID NO: T089-6623-00229
INSP DATE: 5/7/03
CALC DATE: 5/8/03

CALCULATIONS BY: Ronald Holder

YEAR OF DATA: review

NO. OF POINTS: 1

NOTES
EF: EMISSION FACTOR
CE: CONTROL EFFICIENCY
MDR: MAXIMUM DESIGN RATE
MDC: MAXIMUM DESIGN CAPACITY
Ts: STACK DISCHARGE TEMPERATURE
UNITS FOR EMISSIONS ARE IN (TPY) EXCEPT WHERE GIVEN

****

Soap Noodle Bagging Silo DC System (DC-31613)
(Stack #30)
CNTRL DEV: Jet Pulse Dust Collector
DC-31613

MDR (T/hr): 1.256
YEARLY PROD (T/yr): N/A

STACK ID (DIAM:HEIGHT): (0.58': 56')
FLOWRATE (ACFM): 2400
Ts(°F): 68

PERMITTED OPERATING HRS: **8760** hr/yr

SCC NO. 3-01-009-99			POTENTIAL EMISSIONS						ALLOWABLE		COMPANY ACTUAL	
			BEFORE CONTROLS			AFTER CONTROL					BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	2.53	0.999	3.17	76.10	**13.89**	**0.003**	**0.014**	0.0002	**0.62**	**2.71**	N/A	N/A
PM10	1.77	0.999	2.22	53.27	**9.72**	**0.002**	**0.010**	0.0001	**0.62**	**2.71**	N/A	N/A
SOx	0	0	0.00	0.00	0.00	0.000	0.000	N/A	0.00	0.00	N/A	N/A
NOx	0	0	0.00	0.00	0.00	0.000	0.000	N/A	0.00	0.00	N/A	N/A
VOC	0	0	0.00	0.00	0.00	0.000	0.000	N/A	0.00	0.00	N/A	N/A
CO	0	0	0.00	0.00	0.00	0.000	0.000	N/A	0.00	0.00	N/A	N/A
LEAD	0	0	0.00	0.00	0.00	0.000	0.000	N/A	0.00	0.00	N/A	N/A

326 IAC 6-1-2(a) - 0.03 gr/dscf - particulate matter (PM) limitation
The worst case supposition is that all of the PM is PM10.
Therefore, the PM10 limitation is 0.03 gr/dscf.

Minor Source Modification - 326 IAC 2-7-10.5(d)(4)(A)
Less than twenty-five (25) tons per year and equal to or greater than five (5) tons per year of either particulate matter (PM) or particulate matter less than ten (10) microns (PM10).

Minor Permit Modification - 326 IAC 2-7-12(b)(1)
Does not violate any applicable requirement and does not involve significant changes to existing monitoring, reporting, or record keeping requirements in the Part 70 permit.